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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,227	06/26/2003	Narayanan Sundararajan	42P15623	7562

8791 7590 10/19/2005

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

LEVKOVICH, NATALIA A

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/609,227	Applicant(s) SUNDARARAJAN ET AL.	
	Examiner Natalia Levkovich	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-11,13-19,21,22 and 42-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 8-11,13-18 and 42-54 is/are allowed.
- 6) ☒ Claim(s) 1-3,19 and 21 is/are rejected.
- 7) ☒ Claim(s) 4,7,22 and 55-60 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendments and remarks dated 07/29/2005 have been acknowledged by the Examiner and entered. Claims 6, 12, 20 and 23-41 have been canceled; claims 1-5, 7-11, 13-19, 21-22 and 42-60 are pending in this application for consideration on the merits.

The status identifier for claim 57 should be corrected from original to new.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in the 06/15/2005 Office Action.

4. Claims 1-3, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al. (USP 6,120,666) in view of Kurabayashi et al. (PG PUB 20030054558). See the appropriate paragraphs of the 05/04/2005 Office Action.

Allowable Subject Matter

5. Claims 4, 7, 22 and 55-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not teach, or fairly suggest a micro-fluidic focusing device with two lower non-planar (relative to a sample channels) focusing channels located at opposite sides of the focusing manifold, as recited in claim 4.

The prior art does not teach, or fairly suggest a micro-fluidic focusing device having four non-planar (relative to a sample channels) focusing channel ports, as recited in claim 7. Claim 7 is dependent on canceled claim 6. Correction is required.

The prior art does not teach, or fairly suggest a micro-fluidic focusing device having the fourth focusing channel underneath the plane of sample channels, as recited in claim 22.

The prior art does not teach, or fairly suggest a micro-fluidic focusing devices having the non-planar focusing channels and ports aligned as recited in claims 55-60.

Claims 5, 8-11, 16-18, 42-44 and 47 are allowed. The prior art does not teach, or fairly suggest a micro-fluidic focusing device having four on-planar (relative to a sample channels) focusing channels, as recited in claim 5.

Claims 13-15, 45-46 and 48-54 are allowed. The prior art does not teach, or fairly suggest a micro-fluidic focusing device comprising six non-planar (relative to a sample channels) focusing channels, as recited in claim 45.

Response to Arguments

6. Applicant's arguments dated 07/29/2005 have been fully considered but they are but they are not persuasive.

Applicant argues that the 06/15/2005 Office Action 'incorrectly states that 'Jacobson includes "three focusing channels arranged in 3-D configuration"'. The Examiner notes that the above mentioned statement looks as follows: "Jacobson does not teach more than three focusing channels arranged in 3-D configuration" which means that the Examiner considers the apparatus of Jacobson to be a 2D device.

Applicant argues that there is no motivation to modify Jacobson with Kurabayashi. The Examiner disagrees. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed multiple focusing channels surrounding a sample / inlet channel under acute angles and united by a low volume manifold in the modified apparatus of Jacobson, in order to provide effective multidimensional focusing of a liquid sample.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Levkovich whose telephone number is 571-272-2462. The examiner can normally be reached on Mon-Fri, 8 a.m.-4p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill Warden
Supervisory Patent Examiner
Technology Center 1700